Electronic Supplementary Material

Table S1. Vasari imaging features

		IDH1 Mutation (%)	*IDH1* Wild Type (%)	P-value
Tumor location	1 = frontal	12（57.1）	12(48.0)	0.728
	2 = temporal	4(19.0)	8（32.0）	
	3 = insular			
	4 = parietal	5（23.8）	5（20.0）	
side of tumor epicenter	1 = right	6（28.6）	11（44.0）	0.094
	2= center/bilateral	0	3（12.0）	
	3 = left	15（71.4）	11（44.0）	
Enhancement quality	1 = none	2（9.5）	0	0.003*
	2 = mild/minimal	13 (61.9)	6 (24.0)	
	3 = marked/avid	6 (28.6)	19 (76.0)	
Proportion enhancing	2 = none (0%)	2 (9.5)	0	0.001*
	3 = < 5%	3 (14.3)	1(4.0)	
	4 = 6—33%	13 (52.0)	6 (24.0)	
	5 = 34—67%	3 (14.3)	14 (56.0)	
	6 = 68—95%	0	4 (16.0)	
Proportion non-enhancing	2 = none (0%)			<0.001*
	3 = < 5%	0	12 (48.0)	
	4 = 6—33%	2 (9.5)	8 (32.0)	
	5 = 34—67%	10 (47.6)	5 (20.0)	
	6 = 68—95%	9 (42.9)	0	
Proportion necrosis	2 = none (0%)	0	2 (8.0)	0.570
	3 = < 5%	9 (42.9)	10 (40.0)	
	4 = 6—33%	11(52.4)	13 (52.0)	
	5 = 34—67%	1(4.8)	0	
	6 = 68—95%			
Cysts	1 = no	19 (90.5)	21 (84.0)	0.673
	2=yes	2 (9.5)	4 (16.0)	
Thickness of enhancing margin	1=n/a	2 (9.5)	0	<0.001*
	2 = none			
	3=thin	13 (61.9)	3 (12.0)	
	4=thick/solid	6 (28.6)	22 (88.0)	
definition of enhancing margin	1 = not available	2 (9.5)	0	<0.001*
	2 =well-defined	5 (23.8)	20 (80.0)	
	3 = poorly-defined	14 (66.7)	5 (20.0)	
Proportion of edema	2 = none (0%)			0.001*
	3 = < 5%	8 (38.1)	0	
	4 = 6—33%	8 (38.1)	19 (76.0)	
	5 = 34—67%	5 (23.8)	4 (16.0)	
	6 = 68—95%	0	2 (8.0)	

Haemorrhage	1=no	16 (76.2)	13 (52.0)	0.082
	2=yes	5 (23.8)	12 (48.0)	
Diffusion	1 = no image			0.068
	2 = facilitated	17 (81.0)	14 (56.0)	
	3 = restricted	4 (19.0)	11(44.0)	
	4=neither/equivocal/b oth			

Note. P values were obtained with theChi-square test orFisher exact test.

Significant difference between groups(P<0.05).

Data are number (%) unless otherwise indicated.

Table S2. Texture features of DWI

		IDH1 Mutation	*IDH1* Wild Type	P Value
First order Parameters	MinIntensity	668.714±242.562	462.24±334.873	0.039
	MedianIntensity	1196.463±290.407	1020.013±233.252	0.018
	MeanValue	1199.052±282.920	1049.614±210.619	0.030
	stdDeviation	166.949±39.411	307.184±214.866	0.025
	Variance	29351.070±12898.130	138682.200±188538.000	0.025
	MeanDeviation	-944.034±282.907	-794.61±210.612	0.030
Histogram Parameters	skewness	0.153±0.384	0.842±1.126	0.006
	kurtosis	3.154±0.479	5.668±5.112	0.017
	uniformity	0.858±0.031	0.684±0.243	0.007
	Quantile5	933.202 ±237.350	630.969±399.145	0.010
	Quantile10	987.985±253.362	690.681±403.868	0.011
	Quantile25	1083.257±273.858	862.649±301.388	0.011
	Quantile50	1196.465±290.563	1196±465±290.563	0.018
CLCM parameters	Energy	0.028±0.012	0.055±0.046	0.005
	Entropy	5.843±0.431	5.334±0.876	0.010
GLRLM Parameters	LGRE	0.001±0.001	0.032±0.061	0.046
	HGRE	126511.000±36134.550	83922.670±50009.870	0.002

LowGrey-LevelRunEmphasis，LGRE

HighGrey-LevelRunEmphasis，HGRE

Gray-Level Co-occurrence Matrix, GLCM

Gray-Level Run-Length Matrix, GLRLM

Note. Data are interpatient means±standard deviations.

p-values were calculated using unpaired student's t-test or mann-whitney U test(for the unequal variances).